

Section C - Description/Specifications

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Section C - Description/Specifications

Performance Work Statement (PWS)

For

West Valley Demonstration Project (WVDP) **Environmental Characterization Support Services**

C.1 General Description of Services

The Contractor shall perform environmental characterization support services including, but not limited to, soil, sediment & groundwater characterization, environmental monitoring and associated regulatory documentation supporting decommissioning activities at the West Valley Demonstration Project (WVDP) site to support the U.S. Department of Energy (DOE) in satisfying regulatory requirements in the West Valley Demonstration Project Act of 1980 and the New York State Energy and Research Development Authority (NYSERDA)/DOE Cooperative Agreements.

C.2 Background

The WVDP is a unique operation within the DOE. The West Valley Demonstration Project Act of 1980 directed the Secretary of Energy to undertake five major activities, as follows:

- i. Solidify the liquid HLW stored at the WNYNSC into a form suitable for transportation and disposal (completed);
- ii. Develop containers for the solidified HLW suitable for permanent disposal of the HLW (completed);
- iii. Transport the waste to a federal repository for disposal (pending);
- iv. Dispose of low-level radioactive waste (LLRW) and transuranic (TRU) waste produced by the Project (in progress); and
- v. Decontaminate and decommission the HLW storage tanks (PUREX HLW tanks deactivated, July 2003), the HLW solidification facilities (in progress), and any material and hardware used in connection with the Project (in progress).

The WVDP (established to implement the WVDP Act) is located on approximately 200 acres within the 3,345-acre Western New York Nuclear Service Center (WNYNSC), owned by New York State Energy and Development Authority (NYSERDA) in rural Cattaraugus County, about 35 miles south of Buffalo, New York.

The WVDP site is complex, involving a large number of potential radionuclides of concern and a variety of historical processes and events that are known to have or may have released contaminants into the environment. Known affected environmental media include surface soils, subsurface soils, groundwater, surface water, and sediments. The decommissioning of the WVDP site will involve a sequential set of activities that will vary significantly depending on the exact location and activity purpose.

C.3 Safety, Quality Assurance, and Contractor Oversight

The Contractor shall conduct all environmental characterization in accordance with applicable laws, regulations and directives listed in Sections J-1 and J-2. The EQH&Q programs shall be operated as an integral, but visible, part of how the Contractor conducts business. It is a DOE priority to ensure safety of its contractor workforce, the DOE workforce, the public, and the environment. DOE strives to meet a goal of zero accidents and injuries at its work sites and cannot achieve this goal without contractor/DOE cooperation in creation of a culture of Integrated Safety Management at all levels. To achieve this goal, all contractors will be required as part of performing each individual Task Order to implement safety, environmental, quality, and oversight programs to safely and efficiently deliver services. The programs, including all implementing policy, procedures, and instructions, that may be required under each individual Task Order include, but are not limited to:

- Integrated Safety Management System
- Radiation Protection Program (including dosimetry programs)
- Worker Safety and Health Program
- Conduct of Operations Program
- Corporate Operating Experience Program
- Environmental Protection Program
- Quality Assurance Program (based on American Society of Mechanical Engineers (ASME) publication NQA-1 2004, *Quality Assurance Requirements for Nuclear Facility Applications with addenda through 2007*.
- Contractor Assurance Program
- Records Management Program
- Continuity Program
- Packaging and Transportation Program

List A (Section J Attachment J-1) includes the specific Federal regulations applicable to the programs above. List B (Section J Attachment J-2) includes the directives, DOE Policy, Orders, Manuals and Standards applicable to the programs above. Additional programs not discussed above may be required for the successful completion of work under each individual Task Order. Descriptions of these programs are included in the DOE Policies, Orders, Manuals and Standards included in List B. Task Orders will identify the specific programs required. In addition, there are numerous DOE Guides and Handbooks referenced in the Orders and Manuals for the contractor's use in developing and implementing acceptable programs.

C.4 Regulatory Frameworks

Environmental characterization services should be performed and implemented in accordance with the guidance provided in the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM). Services required under this contract for performance of Task Orders at WVDP may be governed by separate regulatory agreements. The agreements will be specifically identified in the individual Task Orders and may be derived from Resource Conservation and Recovery Act (RCRA), DOE Orders, Nuclear Regulatory Commission (NRC) Licenses, Environmental Impact Statements (EIS), Records of Decision (ROD), DOE and NYSERDA Cooperative Agreement, Seneca Nation of Indians Cooperative Agreement and other site-specific requirements.

Some field work performed on-site or off-site at WVDP may require contractor interaction with Federal (DOE and non-DOE) personnel and systems, as well as Tribal, State, and/or local governments.

C.5 Unique Approaches

Unique approaches may be required for addressing specific environmental data needs during the terms and conditions of the contract. Any unique approaches will be identified in each individual Task Orders.

C.6 Contractor-Furnished Resources

The contractor shall furnish all personnel, management and supervision, facilities, equipment, materials, and supplies necessary to perform the work under this contract, except for that specifically identified as being furnished by the Government.

C.7 Government-Furnished Services and Items

Government-furnished services and items will be identified in each individual Task Orders.

C.8 Deliverables

Deliverables, including reports, will be identified in each individual Task Order.

C.9 Location of Performance

Field activities will be performed at the West Valley Demonstration Project (10282 Rock Springs Rd., West Valley, NY 14171). Report preparation may be performed at a contractor supplied location away from WVDP.

C.10 Work Authorization

Work will be authorized by issuance of individual Task Orders.

C.11 Description of Services

C.11.1 Environmental Characterization Services

Services required under this contract include: comprehensive environmental task-based characterization services, including but not limited to: work plan development and documentation, field data collection and sample analyses, civil survey support, non-intrusive geophysical data collection, buried infrastructure identification and mapping, data management, data validation, data reduction, interpretation, and presentation, statistics, geographic information system products, field summary reports, data summary reports (i.e., summary of data verification, validation, and assessment), and technical oversight of field investigation activities. Onsite activities will include subsurface field services (e.g., well drilling, soil borings, cone penetrometer testing, geotechnical data collection and related services) as well as surface soil, groundwater, surface water, and stream sediment characterization. Non-intrusive and field screening capabilities may be required (e.g., gamma walkover surveys, down-hole gamma surveys, non-intrusive geophysical surveys, etc.). In addition, routine site-wide monitoring activities may be required, including but not limited to air, surface water, groundwater, sediment, soil, direct exposure, and biota monitoring. Investigation-derived waste (IDW) management and disposition will also be included. As part of characterization activities, the contractor should be prepared to deploy and support in-field laboratory capabilities (radiological and chemical) as required and appropriate. The contractor should be familiar with the Triad approach to environmental characterization and capable of implementing Triad-based data collection efforts. The contractor should be familiar with Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) guidance and experienced with implementing final status surveys for demonstrating site closure. Consequently the contractor should have the capacity to manage and disseminate data results electronically while in the field to support in-field decision-making, as appropriate.

Environmental data collection activities will be undertaken to support specific WVDP Phase I decommissioning activities at the site as specified in individual Task Orders. Task Orders may be organized by data collection type (e.g., site-wide gamma walk-over survey) or data collection purpose

(e.g., final status survey data collection).

Examples of site-specific activities include (but are not limited to): (1) pre-design WVDP Phase I decommissioning data collection to determine the nature and extent of surface and subsurface soil, sediment, and groundwater contamination consistent with WVDP Phase I decommissioning plan data needs, (2) data collection to support final status survey requirements for areas undergoing remediation to meet site-specific derived concentration guideline levels (DCGL) as specified in the Phase I decommissioning plan, (3) environmental data collection required to support the removal of contaminated media as required by specific decommissioning activities, and (4) routine site-wide environmental monitoring activities. The contract may have many tasks occurring simultaneously.

Examples of data collection-type activities include (but are not limited to): (1) gamma walkover surveys to characterize surface soil contamination, (2) non-intrusive geophysical surveys to identify and map buried infrastructure, (3) civil surveys to determine surface topography and to determine the coordinates of specific features of interest, (4) intrusive data collection including soil cores, GeoProbe cores, test pits, etc. resulting in obtaining samples submitted for analysis, (5) installation of permanent and temporary groundwater data collection points, and (6) field screening of environmental samples for radiological, chemical, or physical parameters of interest. The contractor shall perform the characterization, certification, permitting, storage, treatment, rework necessary for transport or disposal, and shipping for disposal of radiological, hazardous, mixed radiological and hazardous waste, or other waste types that may require handling or management prior to disposal, that may be generated as Investigation Derived Wastes, by task order activities. Specifications regarding specific waste types, preferred treatment and disposal paths that may be available, and existing permits and other requirements will be described in the individual Task Orders issued under this contract.

C.11.2 Regulatory Services

The contractor shall prepare any or all regulatory documents and assist DOE in obtaining public and stakeholder review, comment and acceptance of proposed characterization approaches to satisfy Resource Conservation and Recovery Act (RCRA), National Environmental Policy Act (NEPA), Consent Orders and Decrees, Toxic Substances Control Act (TSCA), Atomic Energy Act, NRC and/or Agreement State licenses, and permits. These activities include, but are not limited to, the following:

- Initial site inspections and assessments
- Historical Site (MARSSIM) terminology
- RCRA Facility Investigation/Feasibility Study Work Plan (RIFS)
- Corrective Measures Study/Feasibility Study
- Categorical Exclusions (CX)
- Environmental Assessment (EA)
- Authorized Limits and supporting ALARA assessments
- National Emission Standards for Hazardous Air Pollutants (NESHAPS) Assessments, Reports, and other Regulatory submittals
- Record of Decision
- Post Construction Report
- Final Remediation Report
- RCRA Permit Modification and Applications
- RCRA Closure Plans
- RCRA Corrective Measure/Action Plans
- Data Summary Reports
- Field Sampling Plan
- Groundwater Modeling Plan
- Well Installation/Field Activities Report
- Hazardous Materials Transportation Request

- Radiological Implementation Plan
- Radiological Work Permit
- Sampling and Analysis Plan
- Waste Manifests
- State-specific reporting of treatment, storage, disposal, and shipment operations
- Public Involvement Plans
- Public Meetings
- Legal Notices
- Fact Sheets
- Administrative File Record and Administrative Record creation, maintenance, and completion

C.11.3 Records Management

The Contractor shall conduct records management in accordance with Title 44 USC, Chapters 21, 29, 31, 33, and 35; 36 CFR, Chapter 12, Subchapter B (Records Management); DOE O 243.1 (Records Management Program) and DOE O 243.2 (Vital Records), and any other DOE requirements as directed by the CO. These functions include, but are not limited to: tasks associated with creation/receipt, maintenance, storage/preservation, protecting, scheduling, indexing and dispositioning active and inactive records; retrieving records from on- and off-site storage facilities, and supporting ongoing Freedom of Information Act (FOIA), Privacy Act, Energy Employee Occupational Illness Compensation Program (EEOICPA) and legal discovery requests.

The Contractor shall prepare/revise, submit for DOE approval, and execute the approved Records Management Plan consistent with records management regulations, including Section I clause entitled “DEAR 970.5204-3 Access to and Ownership of Records” and Section H clause entitled “Privacy Act Systems of Records”. The Records Management Plan is a high-level program document that shall describe, at a minimum: a clear delineation between Government-owned and contractor-owned records; how the Contractor will manage all life-cycle phases of Government-owned records; the contractor organization in charge of the records management program; provision of records management training to all contractor personnel; the safeguarding, protection and maintenance of records (including records containing sensitive information, or classified, if applicable); the use of DOE Records Disposition Schedules; the Contractor’s procedures for final disposition of records (e.g., via transfer to a Federal Records Center, destruction, or transfer to another DOE contractor); creation and maintenance of the Administrative Record (AR); and the Contractor’s procedures for implementation of the records management program as a whole, including relationships with other programs that cannot function properly without sound records search and retrieval capabilities (e.g., processing claims received by the Department of Labor pursuant to the EEOICPA, FIOA, etc.). The Records Management Plan shall be submitted to the CO for review/approval by the Records Management Field Officer.

The Contractor shall prepare/revise, submit for DOE approval, and execute the approved File Plan consistent with records management regulations. A file plan is a comprehensive outline that includes the records series title and description, active file locations, file arrangement, file cutoff, retention period, file transfer instructions, disposition instructions, and other specific instructions that provide guidance for effective management of records, including vital records. The file plan shall be submitted within six months of contract award, for review/approval by the Records Management Field Officer, to ensure records are being managed and scheduled properly; any revisions to the file plan shall be submitted on an annual basis.

All records acquired or generated by the Contractor in performance of this contract, including, but not limited to, records from a predecessor contractor (if applicable) and records described by the contract as being maintained in Privacy Act systems of records, except for those defined as

contractor-owned (Section H clause entitled “DEAR 970.5204-3 Access to and Ownership of Records”), shall be the property of the Government.

The Contractor shall preserve and disposition records in accordance with National Archives and Records Administration (NARA)-approved records disposition schedules (DOE Record Disposition Schedules), as posted on the DOE Office of the Chief Information Officer (OCIO) Records Management web page. Note: Records Retention standards are applicable for the are owned by the Government or the Contractor (DEAR 970.5204-3).

The contractor shall create and maintain a NEPA Administrative Record, which is a compilation of all documents which are considered or relied on in the decision making process. Materials that are typically part of the Project record which have been identified for inclusion in the AR shall be duplicated in their entirety for both the Project records and the AR. The only exceptions to this would be very large sets of materials (e.g., the complete set of EIS references) which should be placed in the AR with a color page “flag” placed in both the Project record and the AR identifying that the sole hard copy is in the AR.

The statutory definition of a “record”, as per 44 USC 3301, applies to all departmental records including those created, received, and maintained by all contractors pursuant to their contracts. Virtually all recorded information in the custody of the Government (including information created by contractors on behalf of the Government) regardless of its media (hard copy, machine-readable, microfilm, or electronic) is considered to be “Government” records. Records include not only the deliverables specified by the contract, but can also include things such as any supporting or backup data used to create the contract deliverables, and related health, safety, environmental, quality assurance information, etc.

C.12 Performance Requirements

For each service, performance requirements are expressed in the following manner and include the following elements. A performance requirement consists of:

- Performance Objective: A statement of the outcome or results expected in a specific service area. Performance objectives are also found in the Task Orders issued under each of the specified service areas.
- Performance Measures: The critical characteristics or aspects of achieving the objective that will be monitored by the government. Each objective may have one or more performance measures.
- Performance Expectations: A statement setting forth all milestones, procurement requirements, and deliverables to be met by the contractor.

C.12.1 Performance Objectives

The contractor shall complete all services as required by each individual Task Order. In accomplishing Performance Objectives, the contractor shall:

- Perform services in accordance with applicable Federal laws, state laws, local laws, Consent Orders and Decrees, permits and any other agreements and DOE environmental, safety and health, and quality assurance requirements
- Perform all services in accordance with approved safety programs
- Complete work on schedule
- Complete work within estimated cost
- Receive no Notice of Violation or equivalent letter from DOE identifying a violation of Federal laws, state laws, local laws, Consent Orders and Decrees, permits, other agreements, DOE Environmental, Safety and Health programs, or quality assurance requirements.

C.12.2 Representative Performance Measures

Each individual Task Order will identify performance measures for the work to be performed. These may include, but are not limited to, the following:

- Environment, Safety, Health and Quality Assurance Statistics (recordable injury rate, lost work day case rates, reports of violations, work days without injuries, number of quality inspections and assessments completed, trends in time, etc.)
- Earned Value Management Statistics and trends
- Risks realized and their monetary value
- Opportunities realized (costs avoided) and their monetary value
- Process efficiency measures (e.g. sample turn-around times for ^{137}Cs and ^{90}Sr screening throughput within a 48 hour period, accuracy of sampling and surveying equipment supporting gamma surveys, per day surface area coverage for gamma walkover surveys, etc.)
- Energy and water efficiency measures (e.g., reductions in fuel, utility, and natural resource consumption, use of renewable energy, etc.)

C.12.3 Representative Performance Expectations

Each individual Task Order will identify performance expectations for the work to be performed. These may include, but are not limited to, the following:

- Provide personal protective equipment.
- Provide safety oversight of transportation activities while on DOE work sites. This includes performing hazard analysis of loading and unloading operations.
- Provide safety training of all service personnel, DOE on-site personnel and visitors.
- Develop and implement a training program to ensure compliance with all environmental, safety and health, quality assurance, and conduct of work requirements.
- Implement a compliant ASME NQA-1 program.
- Provide adequate oversight to ensure safe operations.
- Obtain all necessary permits to conduct work.
- Provide turn-around time (48 hour) sample screening capacity for ^{137}Cs and ^{90}Sr for soil, sediment, surface water, and groundwater samples with detection limits less than one pCi/g for both radionuclides.
- Provide off-site laboratory analytical capabilities for soil, sediment, surface water and groundwater samples at a DOELAP or equivalent certified laboratory along with supporting data review, validation and verification services.
- Coordinate all groundwater characterization with site-wide groundwater protection programs, if any are established.
- Submit characterization report.
- Include and/or resolve all DOE comments in the characterization report and obtain approval by the regulators.
- Provide temporary facilities, which may include, but are not limited to, trailers, change rooms, lockers, washrooms, shower facilities, and sanitation services to accommodate the contractor work force, as needed.
- Remove all accountable property as appropriate for reuse by the DOE.
- Provide access roads, as needed, to facilitate work.
- Modifying existing fencing or adding fencing to control the work area.
- Minimize interference with roads, streets, walks and other facilities.
- Preserve all stakes, monuments, and benchmarks. If characterization techniques make this impossible, the contractor shall agree on an alternative with the DOE.

- Employ and implement measures for controlling suspended solids in storm water run-off as a result of work activities. Storm drains shall be protected during performance of the work in a manner (e.g. straw bales, silt fence, etc.) in accordance with Federal, State or local regulations.
- Dismantle, remove and dispose of all characterization-related facilities, surplus equipment and fencing.
- Remove inactive utilities and structures including, but not limited to: utility poles, post indicator valves, hydrants, exterior piping, electrical and associated distribution control equipment commonly found in substations, transformers, transformer pits and vaults, utility trenches, steam system piping and structures, heating fuel tanks and distribution piping, and compressed gasses tanks and distribution piping.
- Stage all materials and equipment in appropriate lay-down areas.
- Remove and dispose of all equipment, rubble, sanitary waste, scrap metal and trash from the work site.
- Restore the work areas, which may involve, but not be limited to: restoring damaged roadways; removing temporary roadways, facilities and fencing; and restoring other modifications made to facilitate work.
- Complete all dismantlement and removal work.
- Appropriately characterize, store, treat and dispose of all waste.
- For all waste, ensure that final bills of lading and appropriate certificates of acceptance and disposal are signed by the disposal facility representative and are submitted to and accepted by the DOE.
- Receive no moving traffic violations, violations or citations for road worthiness of transport vehicles or for improper labeling, placards, markings, packaging, weight limitation, or shipping paper inadequacies.
- Complete all documentation.
- Submit drafts of regulatory documents to DOE.
- Incorporate any changes made to regulatory documents by the DOE and deliver revised documents to the DOE.
- Develop and implement a dosimetry program compliant with 10 CFR 835 Radiation Protection Programs, including obtaining Department of Energy Laboratory Accreditation Program (DOELAP) accreditation of the dosimetry program.
- Complete regulatory Administrative File and Administrative Record.
- Procure environmentally preferable products, supplies and services, including recycled-content, bio-based-content, energy-efficient, water-efficient, and non-toxic products, supplies, and services as a first option in the conduct of operations.
- Incorporate sustainable design, construction, and operations and maintenance practices into the development and operations of all buildings.
- Manage activities to maximize opportunities to recycle wastes generated through cleanup activities.